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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,609	03/25/2004	Jean Frederic Melchior	P08216US00/DEJ	5021

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EXAMINER

TRIEU, THAI BA

ART UNIT	PAPER NUMBER
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3748

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/808,609

Applicant(s)

MELCHIOR, JEAN FREDERIC

Examiner

Thai-Ba Trieu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-9, 11-24, 29-36 and 52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7, 12-24, 30, 33-36 and 52 is/are allowed.
- 6) ☒ Claim(s) 5 and 6 is/are rejected.
- 7) ☒ Claim(s) 8, 9, 11, 29, 31 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office action is in response to the Amendment After-Final filed on February 20, 2007. Claims 1-4, 10, , 25-28, 37-51, and 53-62 were cancelled.

Upon the reconsideration, the Final Rejection mailed on October 11, 2006 has been withdrawn. A New Non-Final is set forth below.

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in France on March 26, 2003. It is noted, however, that applicant has not filed a certified copy of the foreign application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Bailey (Patent number 6,038,860).

Regarding claim 5, Bailey discloses a 4-stroke reciprocating engine operating between a minimum speed of rotation N_{min} and a maximum speed N_{max} comprising:

a turbocharging unit (18) comprising:

- a compressor (24) which supplies an intake manifold of the engine with compressed air via a cooler (20);

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- a turbine (22) which is supplied with a hot exhaust gas by an exhaust manifold of the engine at an exhaust temperature, the turbine defining an exhaust outlet section S_d offered to said hot exhaust gas; and

an EGR bypass (34) provided between the intake manifold (14) and the exhaust manifold (16) which EGR bypass is dimensioned to transfer a flow of gas between the intake manifold and the outlet manifold without substantial loss of pressure,

such that a turbine inlet pressure is maintained substantially equal to a compressor discharge pressure,

such that, at constant air temperature and with a constant value of the exhaust outlet section S_d , the turbocharging unit delivers a substantially constant volume of cooled air V_c when the compressor discharge pressure varies, the constant volume of cooled air V_c being substantially proportional to the exhaust outlet section S_d offered to the hot exhaust gas,

wherein the exhaust outlet section S_d is selected such that

at a turbocharging adaptation speed N_a , the volume drawn in by the engine is equal to the constant volume V_c ,

below the turbocharging adaptation speed N_a , the volume drawn in by the engine is less than the constant volume of cooled air V_c , and a flow of the cooled air is deflected toward the turbocharging unit through the EGR bypass, and

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above the turbocharging adaptation speed N_a and including the maximum speed N_{max} , the volume drawn in by the engine is more than the constant volume of cooled air V_c , and a flow of exhaust gas is drawn in by the engine through the EGR bypass,

wherein the EGR bypass has a gas cooler (38) adjustable to control the temperature of the transferred flow of the hot exhaust gas,

wherein the adjustment of the temperature is effected by controlling a bypass of the cooler (via 36) (See Figure 1; Column 4, lines 41-60, and Column 5, lines 25-34).

Regarding claim 6, the method as claimed would be inherent during the normal use and operation of Bailey device as disclosed in the rejection of claim 5.

Allowable Subject Matter

Claims 7, 12-24, 30, 33-36, and 52 are allowed.

Claims 8, 9, 11, 29, 31-32 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Bailey (US Patent Number 6,003,315) discloses an EGR system for an internal combustion engine.

- Bailey (US Patent Number 5,802,846) discloses an EGR system for an internal combustion engine.

- Tomaselli (Pub. Number FR 2 847 005 A1) discloses improved regulation of air intake temperature and recirculated exhaust gas temperature by using control of entry of exhaust gas between exhaust gas, intermediate fluid and intake air.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (571) 272-4867. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



TTB
March 01, 2007

Thai-Ba Trieu
Primary Examiner
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